

### REMARKS

The final Office Action mailed June 16, 2008 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1, 3-7, and 9-26 are now pending in this application. Claims 1, 3-7, 9-12, 25 and 26 stand rejected. Claims 13-24 have been withdrawn.

The rejection of Claim 1 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. The Examiner alleges that there is insufficient antecedent basis for the limitation “annular space.” Applicants respectfully submit that “an annular space” is recited in the preamble of Claim 1 and such recitation provides sufficient antecedent basis for “annular space” recited in the body of Claim 1. Accordingly, Claim 1 is submitted as being in compliance with Section 112, second paragraph, and notification to that effect is solicited.

The rejection of Claims 1, 3-7, 9-12, 25 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Korean Publication No. KR2003055965 to Je (hereinafter referred to as “Je”) in view of U.S. Patent No. 3,118,297 to Olding (hereinafter referred to as “Olding”) is respectfully traversed.

The electronic translation of Je describes a bleach input apparatus for a washing machine. The input apparatus includes a storage unit (40) with a bleaching agent chamber (41) and a softening agent chamber (42). A partition (46) separates the chambers (41 and 42), and a siphon pipe (43 and 43') extends from an interior of each chamber (40 and 41), respectively, to a pass station (65) of a tub cover (60). Notably, Je does not describe or suggest a controller, much less a controller configured to automatically adjust a dispense time based on at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle. As such, Je does not provide for adjusting the dispense time after the wash cycle has already begun.

Moreover, Applicants respectfully traverse the Examiner's allegation that although Je does not teach “a controller configured to control a water valve and that the valve dispenses during a selected wash a plurality of wash cycles”, it is a mere obvious choice in design, which is not patentable. Applicants submit that the inclusion of a controller to which Je is silent is not a mere choice in design. The Court of Customs and Patent Appeals has held that

particular placement of a know part with respect to a device is an obvious matter of design choice when the position of the part would not have modified the operation of a device. (See *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975); and *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)). However, the Board of Patent Appeals and Interferences has stated that “[t]he mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant’s specification, to make the necessary changes in the reference device.” (*Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)). As such, it is not Applicants’ specification that is to provide a motivation for utilizing a controller configured to automatically adjust a dispense time based on at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle to adjust the dispense time after the wash cycle has already begun but, rather, the motivation to use such controller must be found in the cited references. Je is silent regarding the use of such controller. Accordingly, Applicants respectfully submit that a controller configured to automatically adjust a dispense time based on at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle to adjust the dispense time after the wash cycle has already begun is not an obvious matter of design choice and that Claim 1 is patentable over the cited references.

Applicants further respectfully traverse the Examiner’s allegation that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Je to create a washing machine with a programmed control of additive dispensing to achieve the expected result. As set forth above, Je is silent regarding such a controller.

Olding describes an automatic washer that includes a cabinet (20), an outer splash tub (34), an extractor wash tub (32), and a bleaching agent conduit (82). The bleaching agent conduit (82) introduces a bleaching agent into the wash tub (32) such that the bleaching agent is sufficiently diluted before coming into contact with clothes within the wash tub (32). Notably, Olding does not describe or suggest a controller configured to automatically adjust a dispense time based on at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle. As such, Olding does not provide for adjusting the dispense time after the wash cycle has already begun.

Claim 1 recites an additive dispensing system for a washing machine that includes a tub for holding wash liquid and a basket for holding articles to be washed, and defining an annular space between the tub and the basket. The additive dispensing system includes “a top cover; a reservoir removably coupled to said top cover, and configured to contain an additive; a water valve coupled to said reservoir; a conduit coupled to said reservoir and extending into the annular space, said conduit providing fluid communication between said reservoir and the annular space, and configured to deliver a diluted additive into the annular space; and a controller coupled to said water valve, said controller configured to: control said water valve to introduce water into said reservoir to dilute the additive; automatically adjust a dispense time to dispense the diluted additive corresponding to at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle; and dispense the diluted additive to the washing machine at the adjusted dispense time by delivering the diluted additive into the annular space through said conduit.”

Neither Je nor Olding, considered alone or in combination, describes or suggests an additive dispensing system for a washing machine as recited in Claim 1. More specifically, neither Je nor Olding, considered alone or in combination, describes or suggests an additive dispensing system that includes a controller configured to automatically adjust a dispense time to dispense the diluted additive corresponding to at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle. Rather, in contrast to the present invention, Je merely describes an input apparatus for a washing machine that includes a storage unit with a bleaching agent chamber, a softening agent chamber, and a siphon pipe that extends from an interior of each chamber to a pass station of a tub cover, and Olding merely describes an automatic washer that includes a bleaching agent conduit for introducing a bleaching agent into a wash tub such that the bleaching agent is sufficiently diluted before coming into contact with clothes within the wash tub. As such, neither Je nor Olding describes an additive dispensing system including a controller configured to automatically adjust a dispense time after the wash cycle has already begun.

Accordingly, for at least the reasons set forth above, Claim 1 is submitted as being patentable over Je in view of Olding.

Claims 3-6 and 26 depend from Claim 1. When the recitations of Claims 3-6 and 26 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 3-6 and 26 are likewise patentable over the combination of Je and Olding.

Claim 7 recites a washing machine including “a tub for holding wash liquid; a basket for holding articles to be washed, an annular space defined between said tub and said basket; and an additive dispensing system comprising: a top cover; a reservoir removably coupled to said top cover, and configured to contain an additive; a water valve coupled to said reservoir; a conduit coupled to said reservoir and extending into said annular space, said conduit providing fluid communication between said reservoir and said annular space, and configured to deliver a diluted additive into said annular space; and a controller coupled to said water valve, said controller configured to: control said water valve to introduce water into said reservoir to dilute the additive; automatically adjust a dispense time to dispense the diluted additive corresponding to at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle; and dispense the diluted additive to the washing machine at the adjusted dispense time by delivering the diluted additive into said annular space through said conduit.”

Neither Je nor Olding, considered alone or in combination, describes or suggests a washing machine as recited in Claim 7. More specifically, neither Je nor Olding, considered alone or in combination, describes or suggests a washing machine that includes a controller configured to automatically adjust a dispense time to dispense the diluted additive corresponding to at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle. Rather, in contrast to the present invention, Je merely describes an input apparatus for a washing machine that includes a storage unit with a bleaching agent chamber, a softening agent chamber, and a siphon pipe that extends from an interior of each chamber to a pass station of a tub cover, and Olding merely describes an automatic washer that includes a bleaching agent conduit for introducing a bleaching agent into a wash tub such that the bleaching agent is sufficiently diluted before coming into contact with clothes within the wash tub. As such, neither Je nor Olding describes a washing machine including a controller configured to automatically adjust a dispense time after the wash cycle has already begun.

Accordingly, for at least the reasons set forth above, Claim 7 is submitted as being patentable over Je in view of Olding

Claims 9-12 depend from Claim 7. When the recitations of Claims 9-12 are considered in combination with the recitations of Claim 7, Applicants submit that dependent Claims 9- 12 are likewise patentable over the combination of Je and Olding.

Claim 25 recites an additive dispensing system for a washing machine, the washing machine including a tub for holding wash liquid and a basket for holding articles to be washed, and defining an annular space between the tub and the basket, said additive dispensing system comprising “a reservoir cover comprising a plurality of tabs extending from said reservoir cover, said plurality of tabs engaging a top cover of the washing machine; a reservoir removably coupled to said reservoir cover, and configured to contain an additive; a water valve coupled to said reservoir; and a controller coupled to said water valve, said controller configured to: control said water valve to introduce water into said reservoir to dilute the additive; automatically adjust a dispense time to dispense the diluted additive corresponding to at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle; and dispense the diluted additive to the washing machine at the adjusted dispense time by delivering the diluted additive into the annular space.”


Neither Je nor Olding, considered alone or in combination, describes or suggests an additive dispensing system for a washing machine as recited in Claim 25. More specifically, neither Je nor Olding, considered alone or in combination, describes or suggests an additive dispensing system that includes a controller configured to automatically adjust a dispense time to dispense the diluted additive corresponding to at least one of a selected wash cycle of a plurality of wash cycles and a user adjustment made during the selected wash cycle. Rather, in contrast to the present invention, Je merely describes an input apparatus for a washing machine that includes a storage unit with a bleaching agent chamber, a softening agent chamber, and a siphon pipe that extends from an interior of each chamber to a pass station of a tub cover, and Olding merely describes an automatic washer that includes a bleaching agent conduit for introducing a bleaching agent into a wash tub such that the bleaching agent is sufficiently diluted before coming into contact with clothes within the wash tub. As such, neither Je nor Olding describes an additive dispensing system including a controller configured to automatically adjust a dispense time after the wash cycle has already begun.

Accordingly, for at least the reasons set forth above, Claim 25 is submitted as being patentable over Je in view of Olding.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1, 3-7, 9-12, 25, and 26 be withdrawn.

In view of the foregoing amendment and remarks, all of the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action are respectfully solicited.

Respectfully submitted,

  
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